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wards attempted to show that *Ophiura* was preoccupied, and made a name, *Ophioglypha*, to take its place; and the question now is, shall it be written *Ophioglypha nodosa* Ltk. or *Ophioglypha nodosa* Lym? Dr. Lütken has no cause for astonishment. There are two parties to this question. That to which he belongs insists on considering *credit* or *honor* the real reason for using names of authors; and always speaks of the 'injustice'' done when an author's name is lost sight of. The party whose views I hold maintains that nomenclature is *a system of exact registration*, and that, with the present enormous mass and confusion of titles, no other guide is possible; and further, that the credit of a zoologist does not rest on his monogram, but on something better. . . . . . To sum up, *Astrophyton costosum* Seba, and *Ophioglypha nodosa* Lyman, mean just what they should mean, and nothing more; to wit, that in the writings of these two persons will be found these names definitely used for the *first time*. They do not distinguish these persons as good or as poor zoologists, nor do they show that such names are the correct ones; but they are simply the 'trademarks' of workmen."

We may add that the following rule regarding this subject was adopted (1868) by the Council of the Peabody Academy:—"Voted: that in labelling the collections the name of the person who first united the generic and specific appellations shall be given as the authority for the name, and that when the name of the original describer of the species is given it shall be in parenthesis."

NATURAL HISTORY MISCELLANY.

BOTANY.

THE PARASITIC FUNGI FOUND IN THE HUMAN EAR have recently been studied by Dr. Karsten. He confirms the statement made by Hallier and other previous observers, that when the spores of these fungi are sown elsewhere they assume very different forms, according as the matrix on which they are sown is rich or poor in material for nutrition; and that fungi described by early writers as distinct species, or even as belonging to different genera, are frequently merely different forms of the same plant.

VITALITY OF CAMBIUM LAYER OF BARK. — Permit me to call attention to a curious fact, relating to the "cambium layer." While spending vacation in Andover, Mass., in July and August of this year, I observed an apple tree upon the premises of Geo. Ripley, Esq., from which the bark had been entirely removed in May, 1870, for the whole distance between the ground and the branches. The tree is about one foot in diameter, and its branches are some seven feet from the ground. Though this tree had been so thoroughly girdled, a new and healthy bark had formed upon its trunk, and the tree appeared vigorous and had a good crop of fruit upon its branches. Upon inquiry, I found that this girdling operation had been performed from no malicious purpose, but for the sake of improving the health and fruitfulness of the tree! I sought the acquaintance of the botanical magician who had proved himself so skilful in producing good from evil, and found him to be an old man of 86 years — Mr. Joseph Davis. He showed me several trees in an adjoining orchard, upon which the same operation had been performed some six weeks previous, each tree manifesting all the signs of healthful vigor and having a new, but very thin bark already formed upon its trunk. Mr. Davis insisted that the removal of the bark should be made about the first of June, when the new wood is most rapidly formed, and that the hand of the operator and every other object should be kept from contact with the stripped trunk for several days. He also stated that a heavy rain storm would kill the tree if occurring within a day or two of the loss of its bark, and pointed out a dead line upon one of the trees, running from the top to the bottom of the trunk, caused by the trickling down of rain produced by a light shower which fell within twenty-four hours of the girdling.

I had never before seen so clear an illustration of the wonderful vitality of the "cambium layer," a portion of which (called "mucilage" by Mr. Davis) must have remained upon the trunks of these trees, and being protected from disturbance performed all the functions of the entire bark, besides speedily restoring the lost portions. — FRANK H. SNOW, *Lawrence*, *Kansas*.

INFLUENCE OF THE PERIOD OF FECUNDATION ON THE SEX OF PLANTS. — The author of the "Vestiges of Creation" advanced the theory that "all beings are at one stage of the embryotic progress female, a certain number of them are afterwards advanced to be of the more powerful sex;" and Thury of Geneva believed that the moment of fertilization relative to the maturity of the ovule, exercises a decisive influence on the sexuality of the product, the ovules fertilized earliest producing females, and those fecundated at a later period producing males. Professor Hoffmann of Giessen has recently attempted to test the truth of this theory in the case of diœcious plants, the species on which the experiments were made being *Spinacia oleracea*, *Mercurialis annua*, *Lychius vespertina*, and *Rumex acetosella*. In each case the female plants were separated into two portions, one being fertilized artificially as early as the stigmas were developed, the other after they had been mature for a considerable period. The result of his experiments was, on the whole, decidedly opposed to Thury's theory; nevertheless he found that the period of fecundation had an unmistakable influence on the plant; and also that a remarkable difference exists between the results of artificial and of natural impregnation which he was quite unable to account for.—A. W. B.

DIATOMS IN THE HOT SPRINGS OF NEVADA.—Dr. Blake exhibited, before the California Academy of Sciences, under a powerful microscope, specimens of Diatoms from a hot spring in Nevada, the temperature of which was one hundred and sixty degrees. Dr. Blake said they were more numerous there than in any other locality, six or eight hundred occurring in a bit of mud the size of a pin's head. Most of them were identical with the fossil species described by Ehrenberg, from near Salt Lake, but many were new. He mentioned particularly the red algæ, living in the spring and found in salt beds in many parts of the world. He found about fifty-two species, of which thirty are the same as Ehrenberg's, who mentions about sixty-eight.

ZOOLOGY.

FOSSIL MESOZOIC MAMMALS.*—The interest which in the year 1854 centred around the important discoveries of Mr. Beckles in a small and apparently insignificant seam in a scarcely noticeable stratum of the upper Oolitic series has during the past few months risen to satisfaction at our knowledge of the fact that the speci-

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* "Monograph of the Fossil Mammalia of the Mesozoic Formation." By Professor Owen, F. R. S., D. C. L. (Printed for the Palæontographical Society. 1871.)